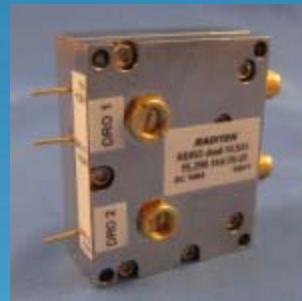


*RADITEK inc*

# Active Sub-Assemblies Presentation



# *RADITEK inc*

- RADITEK was founded in 1993
- Founders:
- Malcolm Lee (President and CTO)
- Peter Corbett (COO)
- Manufacturing Telecom and Wireless
  - Passive Components
  - Active Sub Assemblies
  - Systems for Satcom, Terrestrial Microwave

# *RADITEK continues...*

## ACTIVE SUB ASSEMBLIES

- Oscillators: DROs, Phase locked DROs
- Crystal: OCXOs, VCXOs, VCTCXOs etc
- Synthesizers, VCOs etc
- YIG oscillators to >20GHz
- Amplifiers, Converters...

# Oscillators

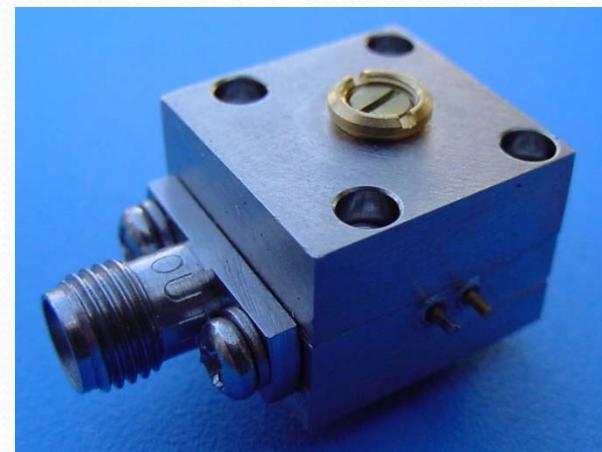
*RADITEK inc*

# *Oscillators..*

- **Phase locked sources to >46GHz**
  - (INTERNAL OR EXTERNAL REFERENCE)
  - **Phase locked/synthesized DROs (Dielectric Resonant Oscillators)**
  - **Phase locked CROs (Coaxial Resonant Oscillators)**
  - **Synthesizers**
    - Fixed frequency to >26GHz, PLO replacement
    - Variable frequency programmable (3 wire series) to >26GHz
- **Crystal Oscillators**
  - OCXO (High stability Ovenized Crystal oscillators)
  - TCXO (Temperature compensated Crystal oscillators)

# *DROs ..*

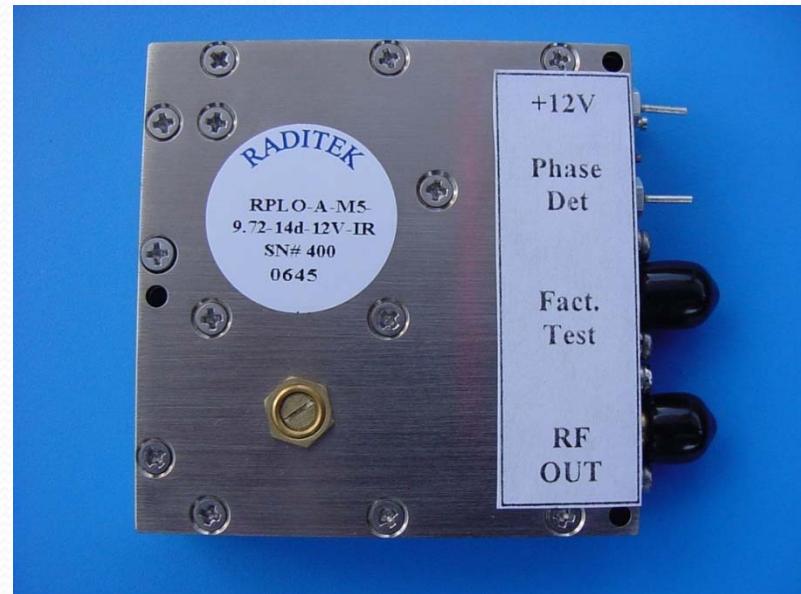
Models in the 4-40GHz band shown  
Lower band CROs also available.



# *Phase Locked DROs...*



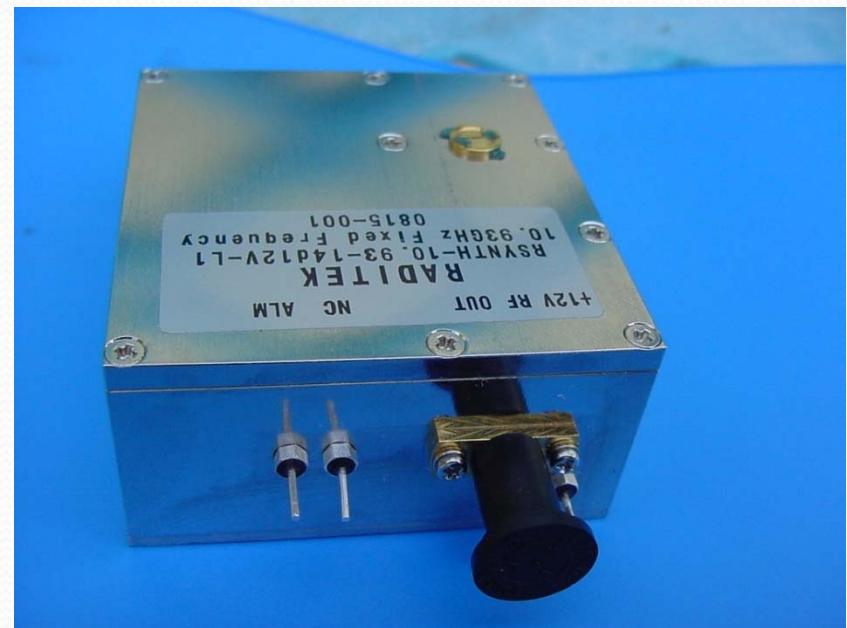
External reference model  
16GHz example



Internal reference model  
9.72 GHz example

Standard and custom form factors

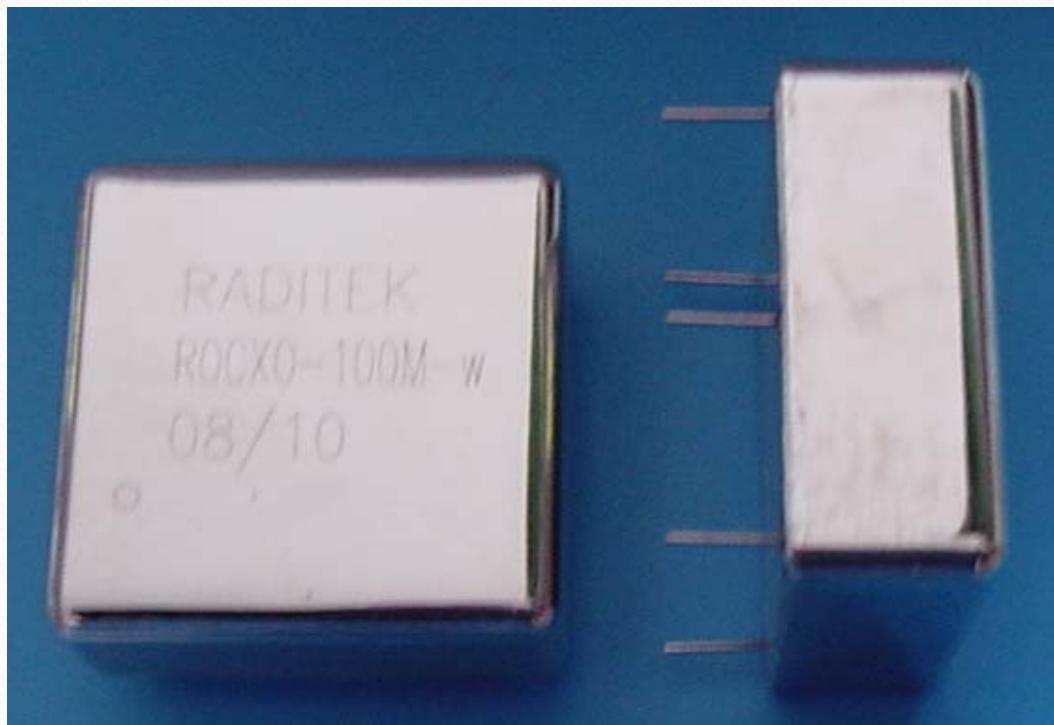
# *Superb Synthesizers...*



Fixed frequency, 10.93GHz unit shown. **NOTE:** Output frequency does **not need** to be a harmonic of the reference, unlike other's PLDROs etc.  
Also serial bus programmable version to ~26GHz

# *Crystal Oscillators..*

100MHz OCXO (Ovenized crystal oscillator)



8MHz VCTCXO  
Voltage controlled,  
Temperature compensated  
Crystal Oscillator

# Amplifiers

*RADITEK inc*

# *Amplifiers..*

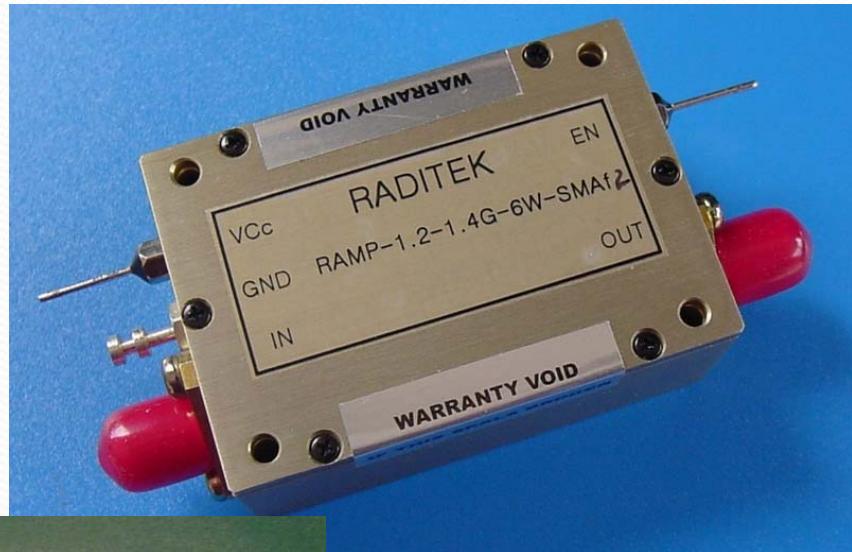
- Custom amplifier “bricks” and 19” rack mount..
  - To 40 GHz
  - Minimum order quantity (MOQ) is 5 or 10 (typically)
  - LDMOS, GaN, SiGe, HBT technologies etc.
  - Specializing in high linearity (Power) amplifiers
    - WiMax, TD-SCDMA, GSM, WCDMA etc
    - Multi-channel
  - TWTA based CW and Pulsed amplifiers to Mwatts!
    - (Quote is SUBJECT TO U.S. approval, “WHERE USED/END USER STATEMENT” and any other restrictions.)

# Amplifiers

950-960MHz, 40W

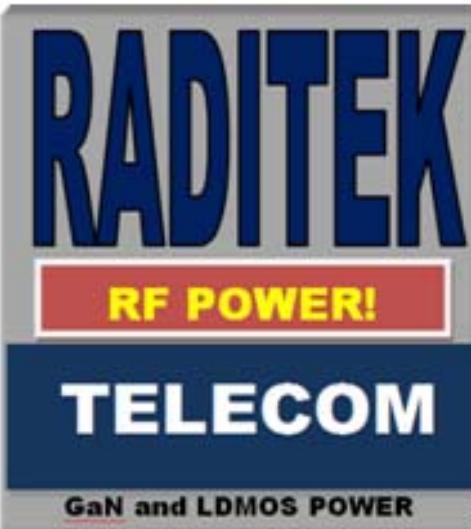


1.2-1.4GHz, 6W



# Amplifier 81-86 GHz, 71-76GHz





**250 Watt/ 625 Watt/  
1250 Watt**

**Perfect for high Crest factor modulation: ATSC television and OFDM-Data services. Also, Hybrid AM/FM/digital broadcast and low-power local data transmission such as WiMAX, IPTV and MediaFLO.**

Description	Frequency Bandwidth	Power Levels Up to
Broadband Modules	10 KHz - 8 GHz	600 Watt
Broadband Systems	10 KHz - 8 GHz	2000 Watt
General Communication Modules	0.1 MHz - 4.2 GHz	800 Watt
General Communication Systems	0.1 MHz - 4.2 GHz	2500 Watt
Matched Band Modules *	2 GHz - 18 GHz	300 Watt
Matched Band Systems *	2 GHz - 18 GHz	1000 Watt
Personal Communication Modules	Cell, GSM, PCS, iDEN, WiMAX, WLL	Various
Personal Communication Systems	Cell, GSM, PCS, iDEN, WiMAX, WLL	Various

**3100 – 3500 MHz  
1300 Watts  
Pulse**

- Solid-state Class AB
- Broadband
- Suitable for Pulse apps
- Built-in control, monitoring & protection
- 50 ohm
- High reliability and ruggedness
- Isolator output protection



**RADITEK inc**  
**(408) 266-7404**  
**www.raditek.com**

**500 – 2500 MHz  
100 Watts**

Suitable for broadband mobile jamming and band specific high power linear applications in the C/L/U/R frequency bands.



	250 Watt	625 Watt	1250 Watt
<b>RADITEK</b> <b>RF POWER!</b> <b>TELECOM</b> <b>GaN and LDMOS POWER</b>			
Model	RADI-F1-F2-250W-G-28V	F1-F2-625W-G-28V	F1-F2-1.25KW-G-28V
Frequency Response	UHF Band	UHF Band	UHF Band
Power Output (average peak power)	250 Watts	625 Watts	1250 Watts
Gain Adjustability	3 dB	3 dB	3 dB

# *IFF Power amplifier, 1030MHz 4KW peak power. Ground based Interrogator*



# YIG Products

Section 6

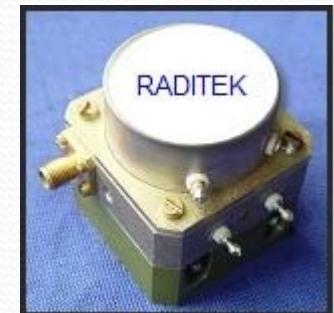
*RADITEK inc*



# *YIG Products..*

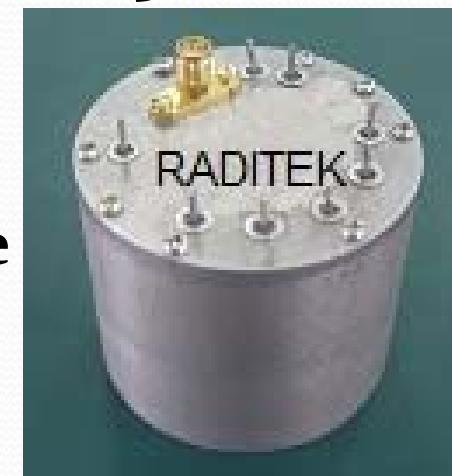
- **Advanced YIG FILTERS**

- 0.5~1 GHz, 1~2 GHz, 2~4GHz, 2-6GHz, 4~8 GHz, 8~12 GHz, 12~18 GHZ, 18~26 GHz, and 26.5~ 40GHz
- **Band Pass, or Band stop available**
- *Ultra wideband available, e.g. 200MHz min at 2GHz!*
  - (*Everyone else struggles to meet 100MHz at 2 GHz!!!!!!*)
- Special, custom models in reasonable volume
- Analog voltage driver available
- Digital driver available



# *YIG Products..*

- **Advanced Ultra broad-band YIG Oscillators**
  - **2 to 8GHz, 2 to 10 GHz, 4 to 18 GHz,**
  - **2 to 18 GHz, and 2 to 20 GHz... specials to >30GHz!**
  - **Single and dual out puts (<18 GHz)**
  - **10dBm typical outputs (<18 GHz)**
  - **Custom models in reasonable volume**
  - **Analog voltage driver available**
  - **12 bit Digital driver**
    - **Microcontroller based, look up table temperature compensated**



# **TELECOM SYSTEMS**

## **Sub Assemblies**

### **SATCOM RF,**

### **Modems,**

### **Antenna**

# Satellite Products Converters



- **UP/Down Converters: Up to 4 independent converters per rack unit**
- **Hot swap, redundant power supplies**
- **L, C, X, Ku and new Ka band**

# Satellite Products BUCs



- C, X, Ku and new Ka band
- Example: 50W Ku Band GaN BUC
- Lightest and smallest in the industry
- 1+1 and High Powers (indoor and outdoor)

# Dream and Super Dream (DamaREAdy Modem)

## DAMA (Demand Assigned Multiple Acess)

## BOD (Adaptive Bandwidth on Demand)

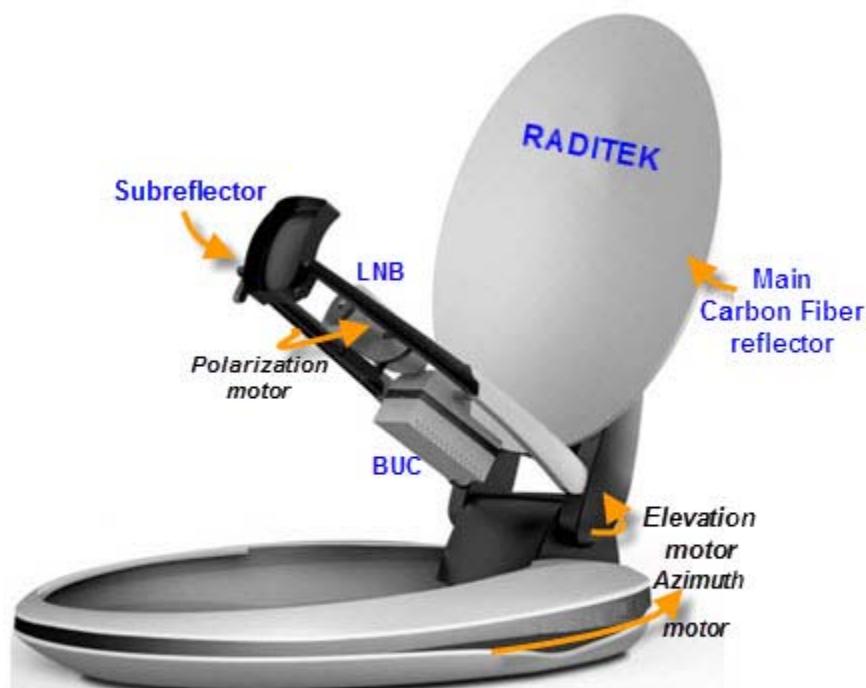


**ALL IP based ROUTER SCPC modem, which is always SINGLE HOP. Can be used as either:**

- 1.A Stand alone SCPC, Point to Point modem or
- 2.A remote “TDM” based modem function used in a DREAM Super Hub modem network or
- 3.A super (satellite) efficient DAMA (Demand Assigned Multiple Access) based SCPC modem ABOD)

- Multiple STAR or MESH networks
- Central network status display, spectrum analyzer display etc

# Satellite Products VMA



Antenna Control Unit (ACU) in Base

with GPS compass

Incl. Microprocessor, Servo controllers, Tracking receiver etc

If we are not already there....

Please tell us how we can be your most favored supplier, partner ?

If you didn't see the product you were looking for, still ask us, we may be developing something similar as a special!  
Contact your representative...

*please visit us often at:*

*[www.raditek.com](http://www.raditek.com)*